Electronic Supplementary Material (ESI) for Dalton Transactions.

Supporting Information

Encapsulation of Dyes in Metal-Organic Frameworks and the Tunable Nonlinear Optical Properties

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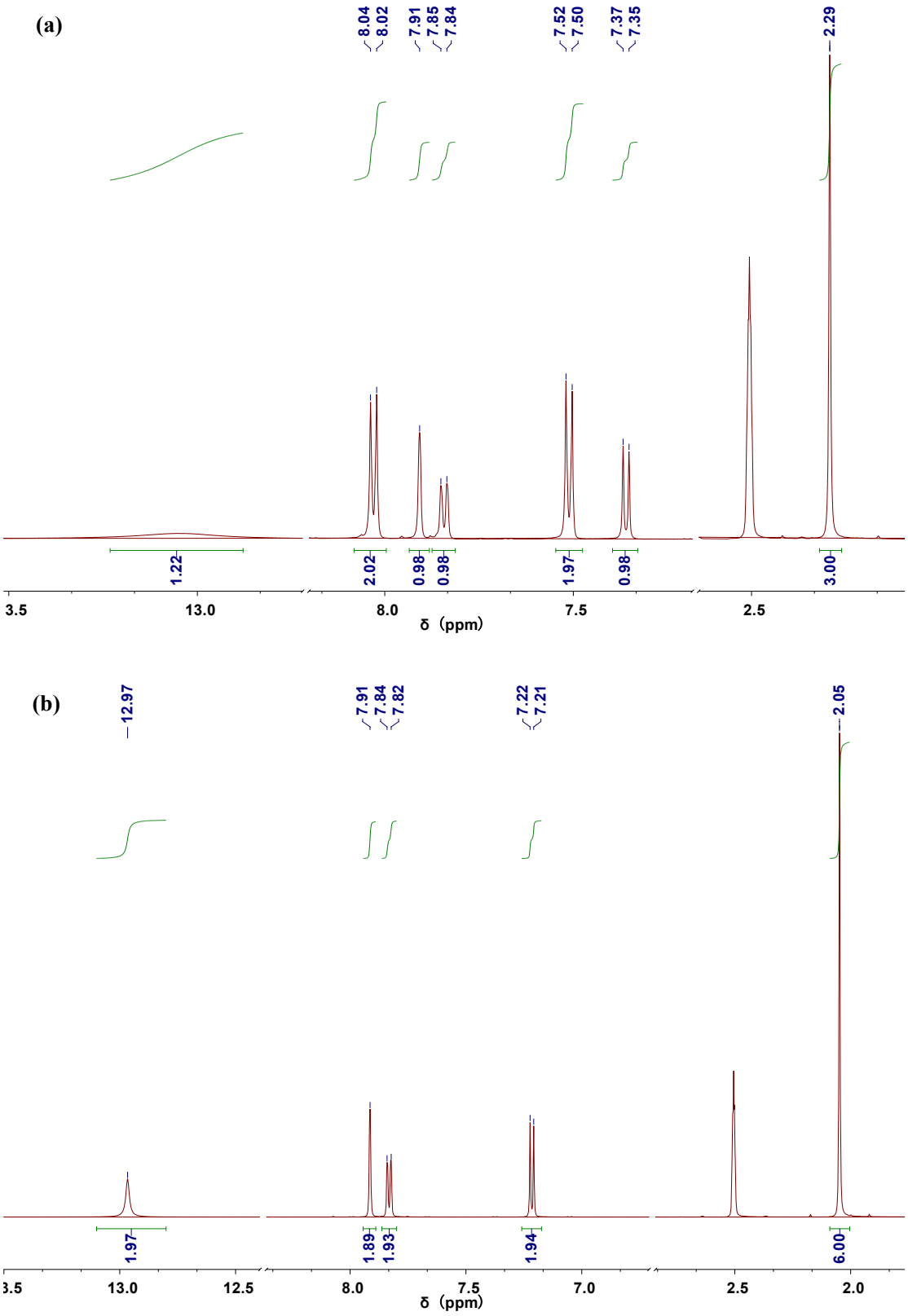


Figure S1. ^{1}H NMR spectra (500 MHz) of the dye (a) **MBPDC** and (b) **DMBPDC**

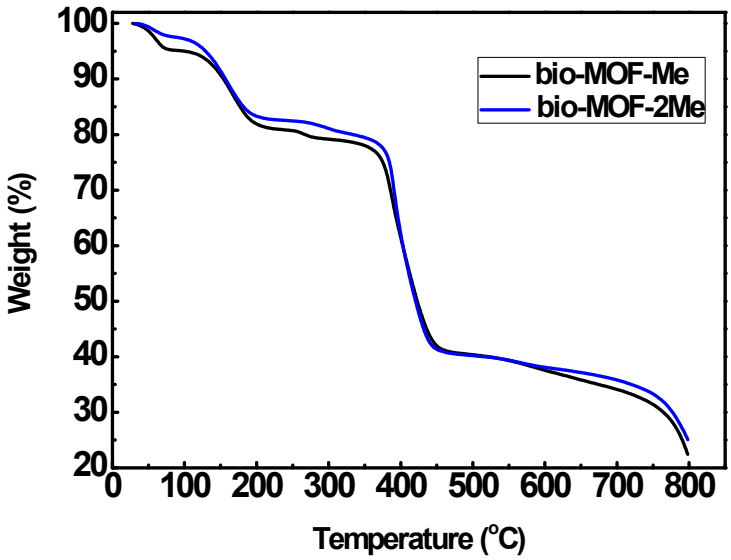
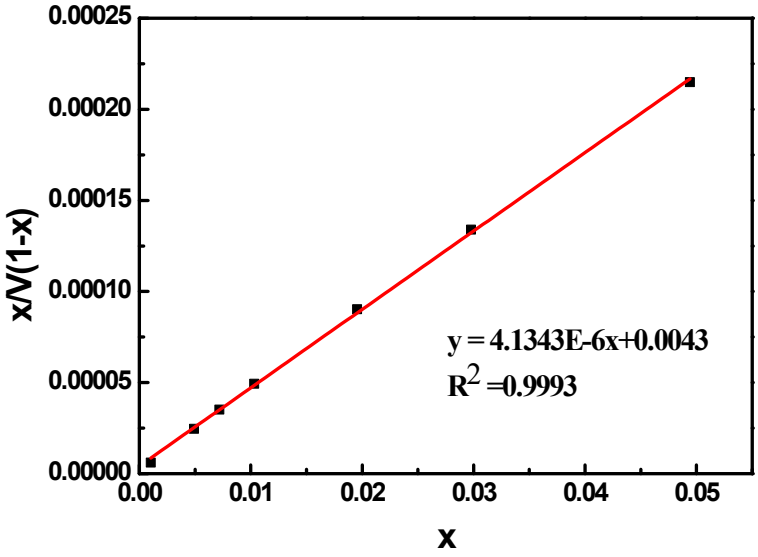
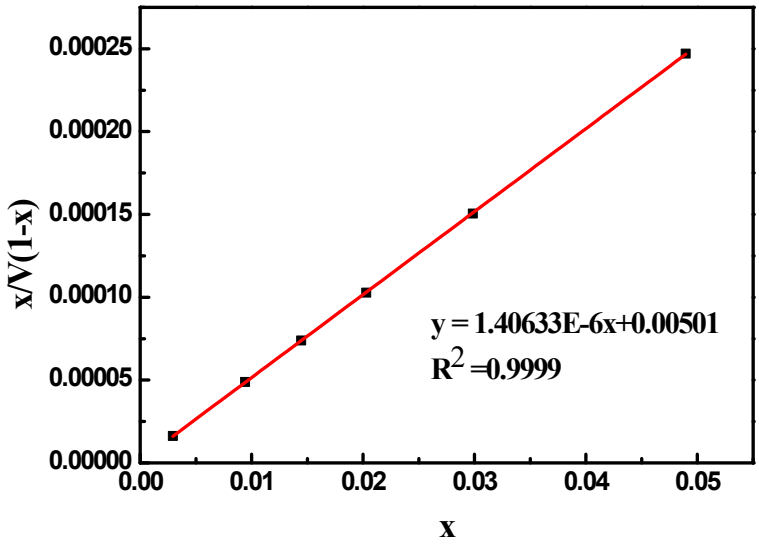


Figure S2. TGA curves of **bio-MOF-Me** and **bio-MOF-2Me**



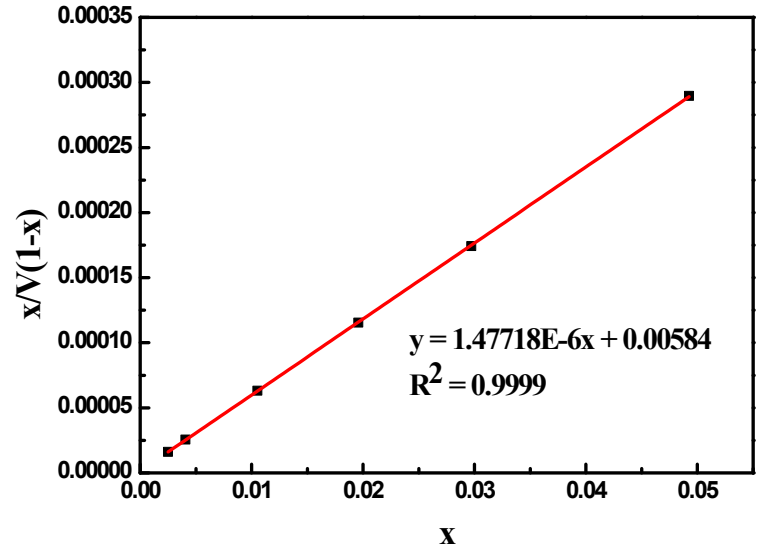
S_{BET}=1/(Slope+Intercept)/22414×6.023×10^{23}×0.162×10^{-18} = 1011.4 m^2/g

Figure S3. The BET surface area of **bio-MOF-1** obtained from N_2 adsorption isotherm at 77 K



S_{BET}=1/(Slope+Intercept)/22414×6.023×10^{23}×0.162×10^{-18} = 868.7 m^2/g

Figure S4. The BET surface area of **bio-MOF-Me** obtained from N_2 adsorption isotherm at 77 K



S_{BET}=1/(Slope+Intercept)/22414×6.023×10^{23}×0.162×10^{-18} = 745.2 m^2/g

Figure S5. The BET surface area of **bio-MOF-2Me** obtained from N_2 adsorption isotherm at 77 K

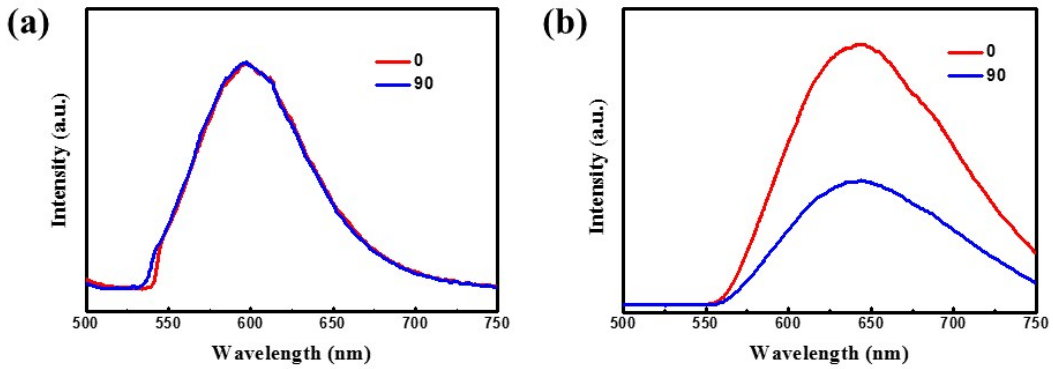


Figure S6. Polarized fluorescence spectra of (a) bio-MOF-1⊃DM-1 and (b) bio-MOF-1⊃DP-1

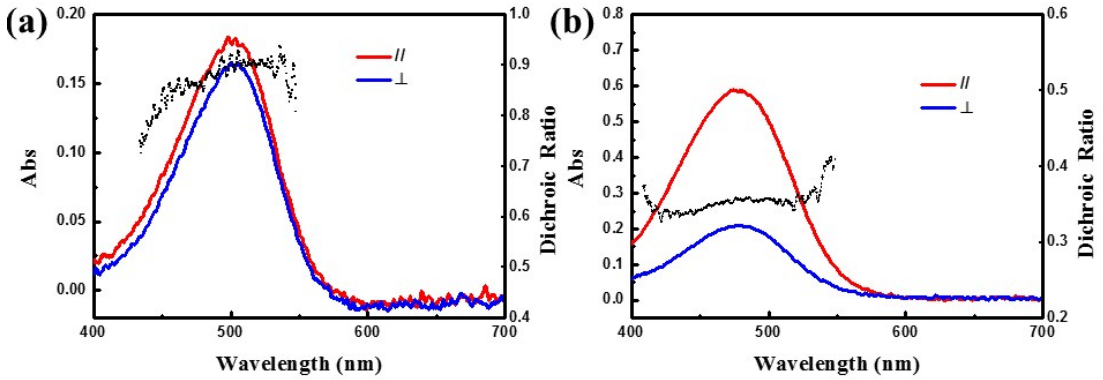


Figure S7. The polarized absorption spectra of (a) bio-MOF-1⊃DM-1 and (b) bio-MOF-1⊃DP-1, and the corresponding dichroic ratio (black dots).

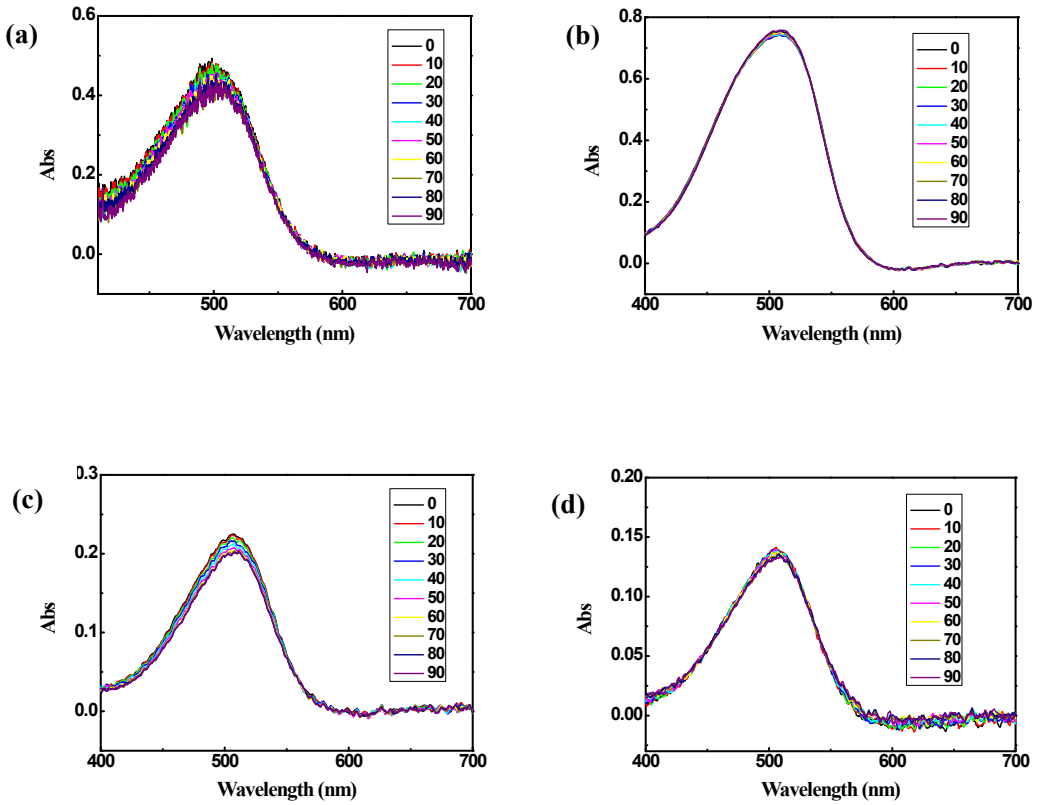


Figure S8. Polarized absorption spectra of (a) **bio-MOF-1⊃DM-1**, (b) **bio-MOF-1⊃DM-4**, (c) **bio-MOF-1⊃DM-7** and (d) **bio-MOF-1⊃DM-7.** The legend means the angle between the polarizer and the long axis of crystal

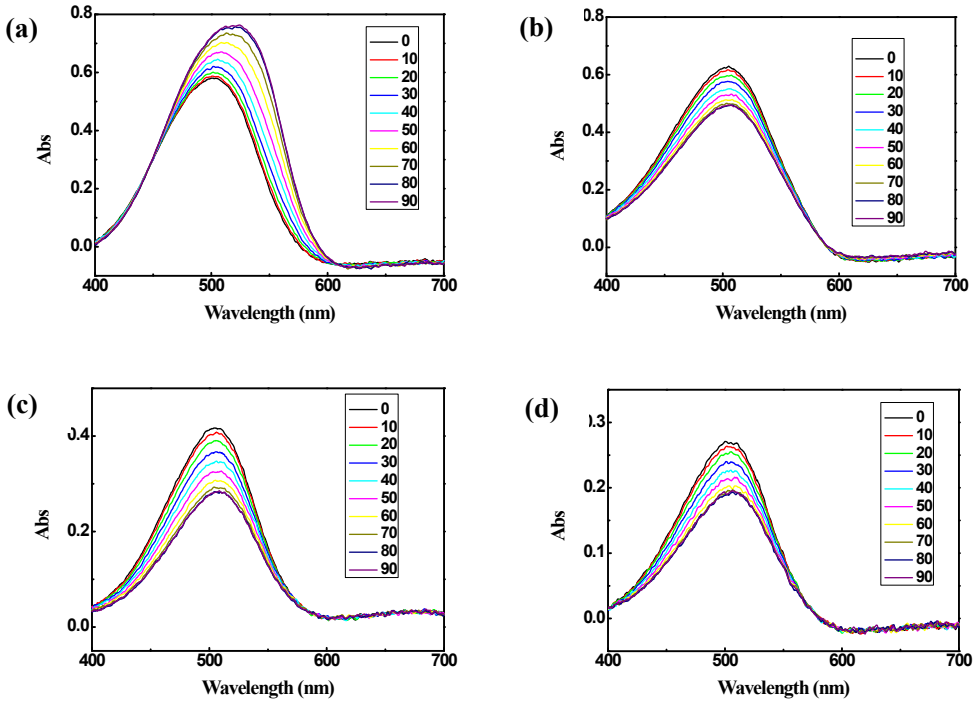


Figure S9. Polarized absorption spectra of (a) **bio-MOF-Me⊃DM-1**, (b) **bio-MOF-Me⊃DM-4**, (c) **bio-MOF-Me⊃DM-7** and (d) **bio-MOF-Me⊃DM-7.**

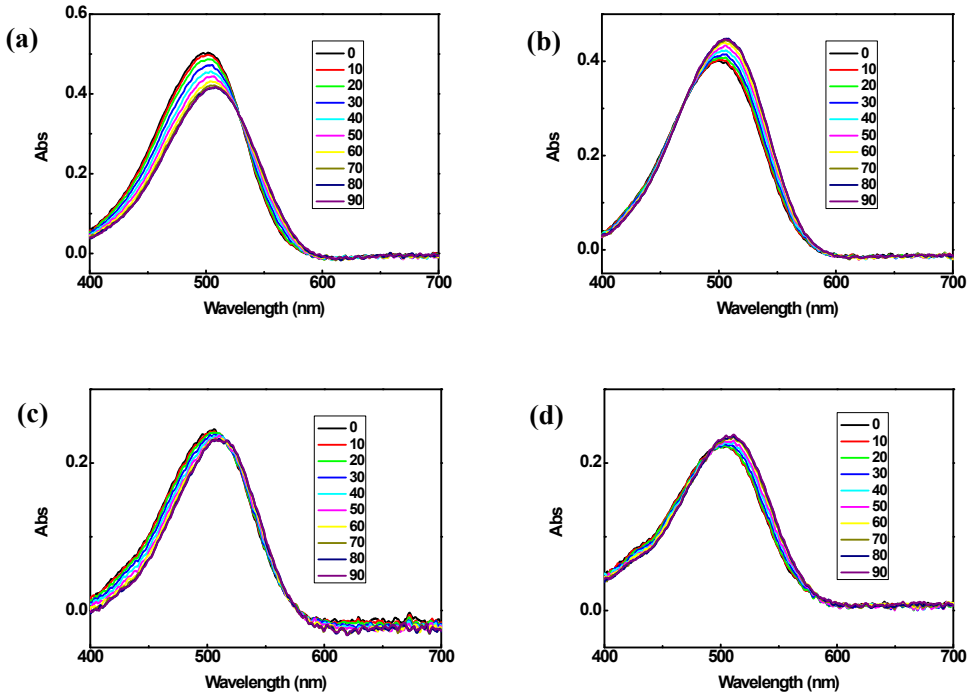


Figure S10. Polarized absorption spectra of (a) **bio-MOF-2Me⊃DM-1**, (b) **bio-MOF-2Me⊃DM-4**, (c) **bio-MOF-2Me⊃DM-7** and (d) **bio-MOF-2Me⊃DM-7.**

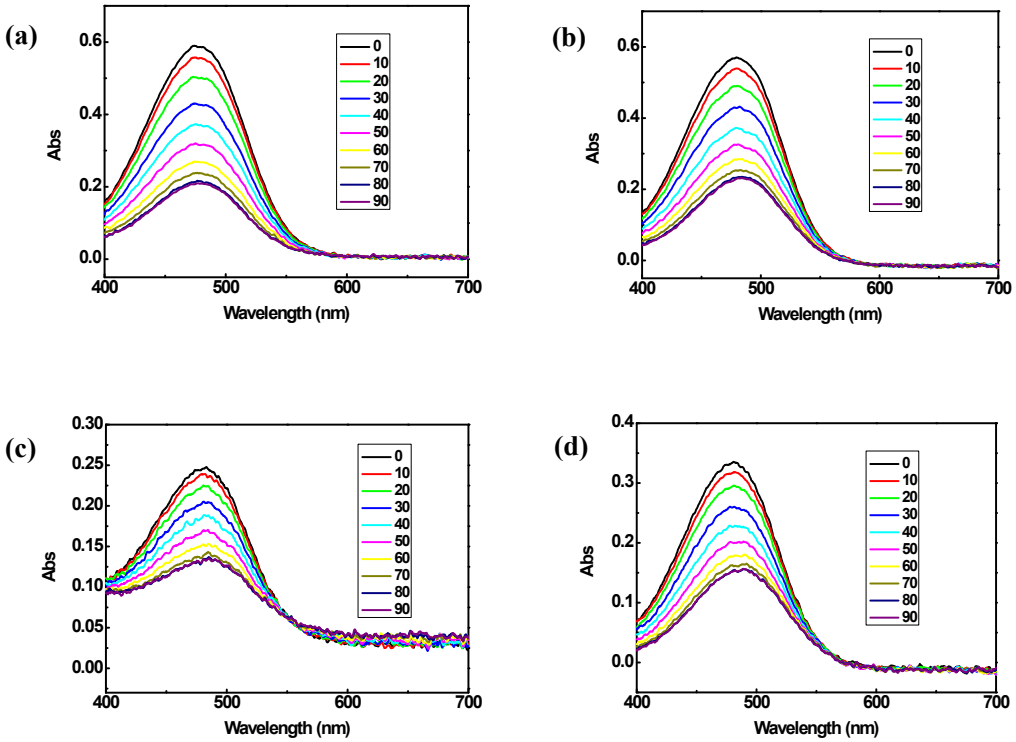


Figure S11. Polarized absorption spectra of (a) **bio-MOF-1⊃DP-1**, (b) **bio-MOF-1⊃DP-4**, (c) **bio-MOF-1⊃DP-7** and (d) **bio-MOF-1⊃DP-7.**

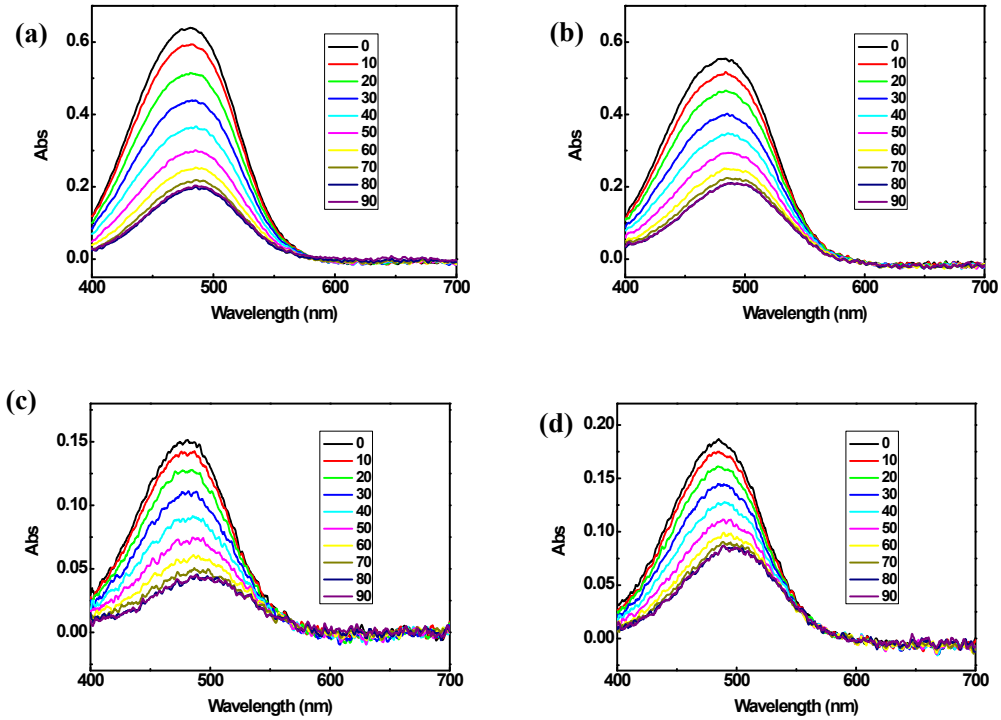


Figure S12. Polarized absorption spectra of (a) **bio-MOF-Me⊃DP-1**, (b) **bio-MOF-Me⊃DP-4**, (c) **bio-MOF-Me⊃DP-7** and (d) **bio-MOF-Me⊃DP-7.**

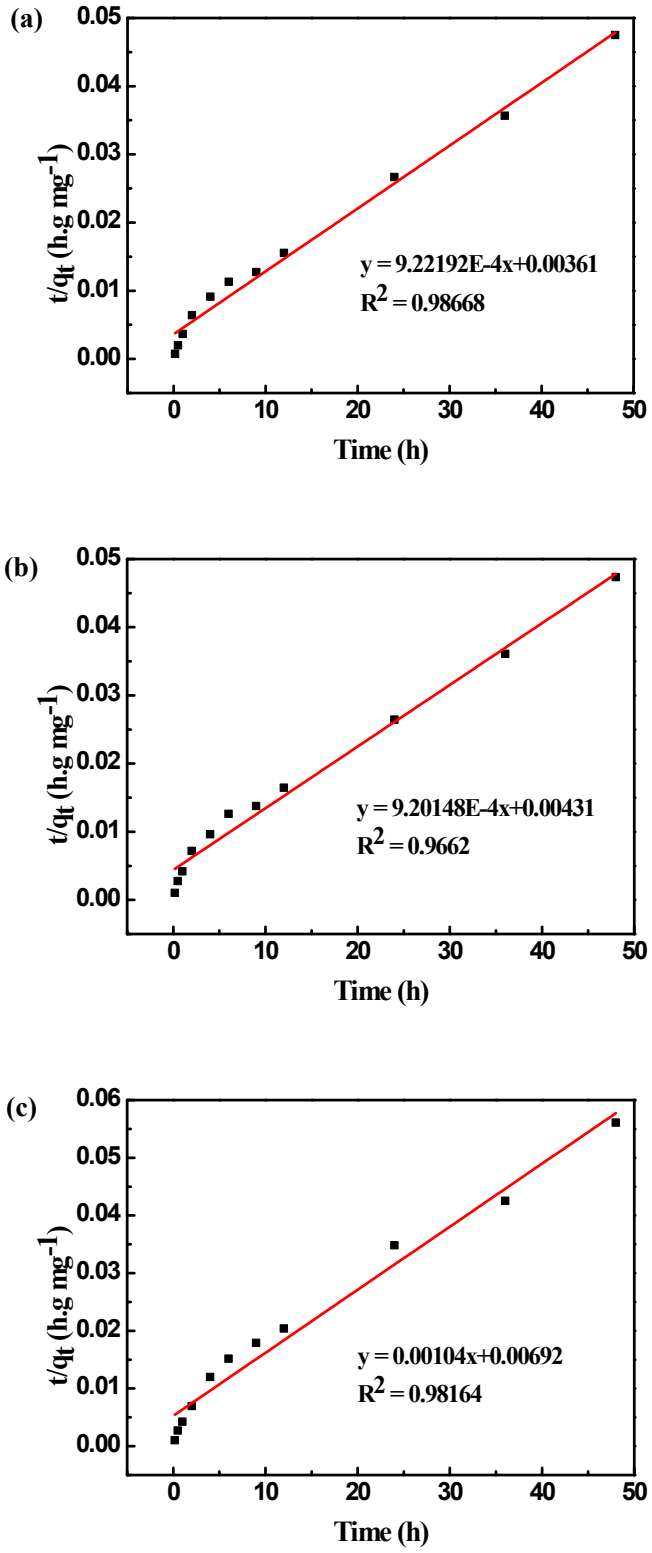


Figure S13. Effect of reaction time (the right one describes the pseudo-second-order kinetic) on **DM-1** adsorption onto (a) **bio-MOF-1**, (b) **bio-MOF-Me** and (c) **bio-MOF-2Me**

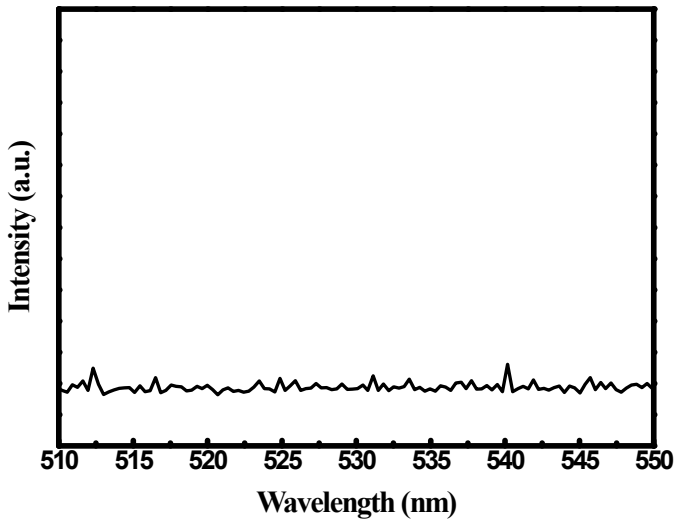


Figure S14. SHG spectra of DM-1 crystals